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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|-------------|----------------------|---------------------|------------------|
| 10/824,084 | 04/14/2004 | Rudolph G. Benz | ITTD-112US | 7016 |
| 23122 | 7590 | 06/23/2005 | EXAMINER | |
| RATNERPRESTIA | | | KO, TONY | |
| P O BOX 980 | | | ART UNIT | PAPER NUMBER |
| VALLEY FORGE, PA 19482-0980 | | | 2878 | |

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/824,084

Applicant(s)

BENZ ET AL.

Examiner

Tony Ko

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/14/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ng (U.S. Patent 4,471,378).

3. Regarding claims 1-3 and 7-9, Ng discloses (Figs. 1-5) an intensified solid-state imaging sensor comprising: a photo cathode (16) for converting light from an image into electrons; an electron multiplying device (20) for receiving electrons from the photo cathode, the electron multiplying device outputting a greater number of electrons than the electron multiplying device receives from the photo cathode; and a solid-state image sensor (52) including a plurality of pixels for receiving the electrons from the electron multiplying device through a plurality of channels of the electron multiplying device, the solid-state image sensor generating an intensified image signal from the electrons received from the electron multiplying device, the plurality of channels being arranged in a plurality of channel patterns, and the plurality of pixels being arranged in a plurality of pixels patterns, each of the plurality of channel patterns being mapped to a respective one of the plurality of pixel patterns such that electron signals from each of the plurality of channel patterns is substantially received by the single respective one of the plurality of pixel patterns. Ng also discloses each of the plurality of channel (22) patterns comprises a single channel (one of the channels) and each of the plurality of pixel patterns

comprises a single pixel (54). Ng also discloses each of the plurality of channel patterns is substantially the same size and shape as the respective one of the plurality of pixel patterns (Rectangular). Ng also discloses each of the plurality of channel patterns comprises a plurality of channels, and each of the plurality of pixel patterns comprises a single pixel. Ng also discloses each of the plurality of channel patterns comprises a channels, and each of the plurality of pixel patterns comprises a plurality of pixels (54). Ng also discloses each of the plurality of channel patterns is rotationally and translationally aligned with the respective one of the plurality of pixel patterns. Ng's invention inherently discloses the plurality of pores of the multi-channel plate for the electrons to pass through. Ng also discloses the solid-state image sensor is CCD device.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ng.

6. Regarding claim 10, Ng discloses the invention set forth above. Ng does not disclose the use of CMOS. It is design to use CMOS. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use CMOS to enhance mass production.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng.

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8. Regarding claims 4 and 5, Ng discloses the invention set forth above. Ng does not disclose the photosensitive element passing through the first and the remaining area comprises sampling light by a charge-coupled device. It is design choice to use charge couple device. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use charge couple device to store signals.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ng in view of Pryor (U.S. Patent 5,734,172)

10. Regarding claim 6, Ng discloses the invention set forth above. Ng does not disclose the use of a pockel cell modulator. Pryor discloses the use of a pockel cell modulator (2). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use pockel cell modulator to control the intensity of the light.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Ko whose telephone number is 571-272-1926. The examiner can normally be reached on Monday-Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TKO



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